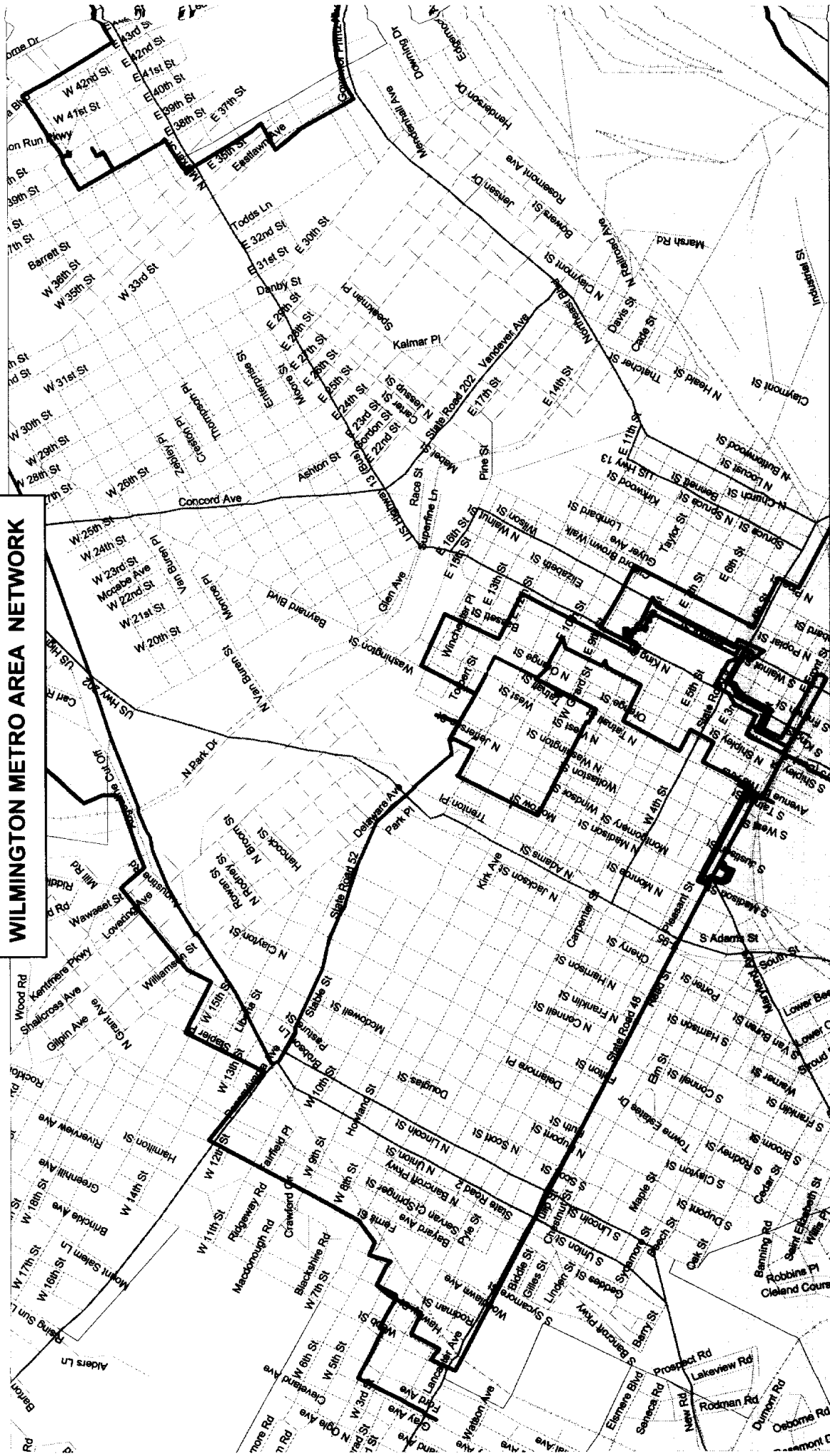


WILMINGTON METRO AREA NETWORK



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Legend:
CSC Fiber

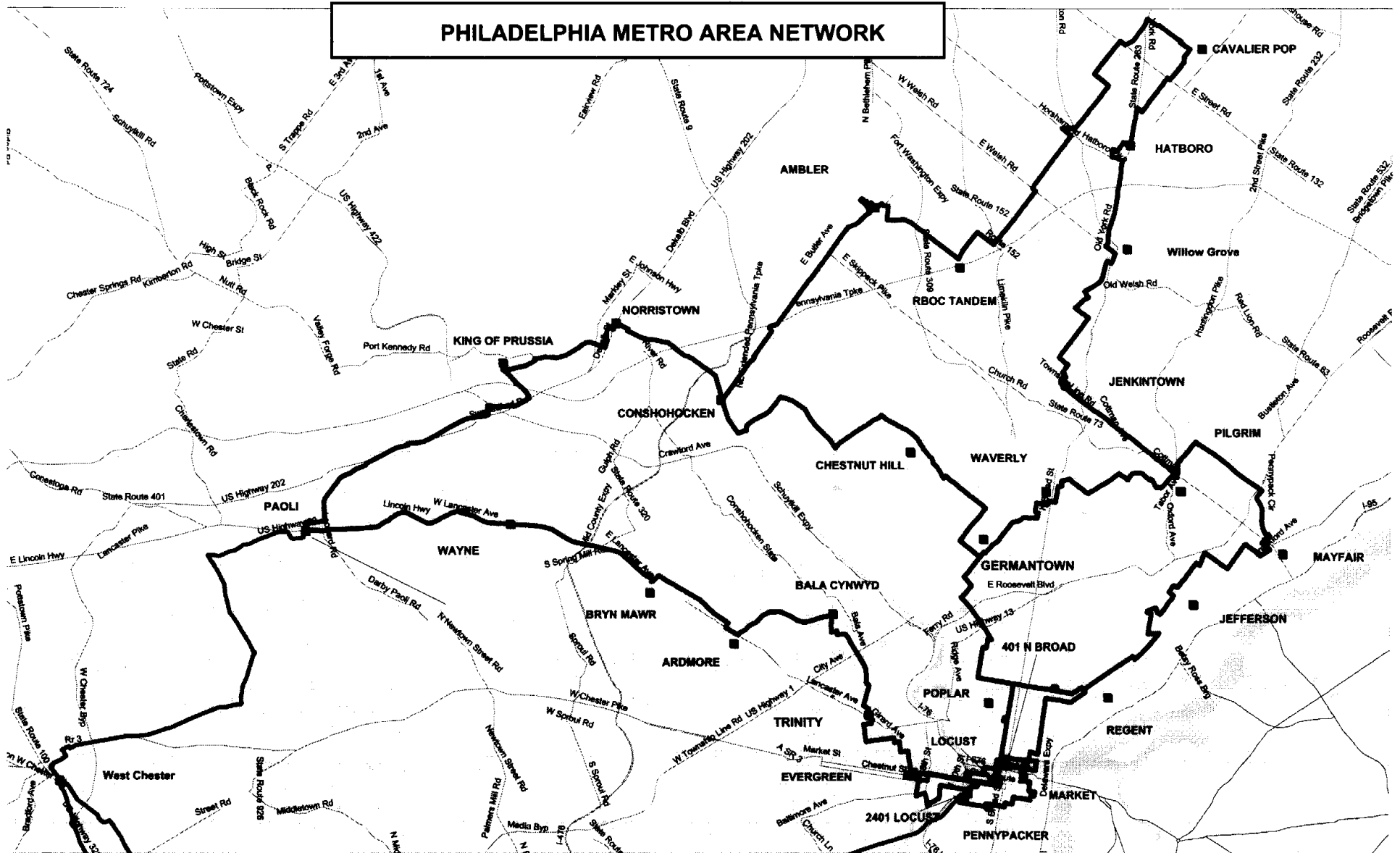
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G. Whittington, WCR

REV 11/04/03 N.T.S.



PHILADELPHIA METRO AREA NETWORK



Legend:

CSC Fiber —
Central Offices ■

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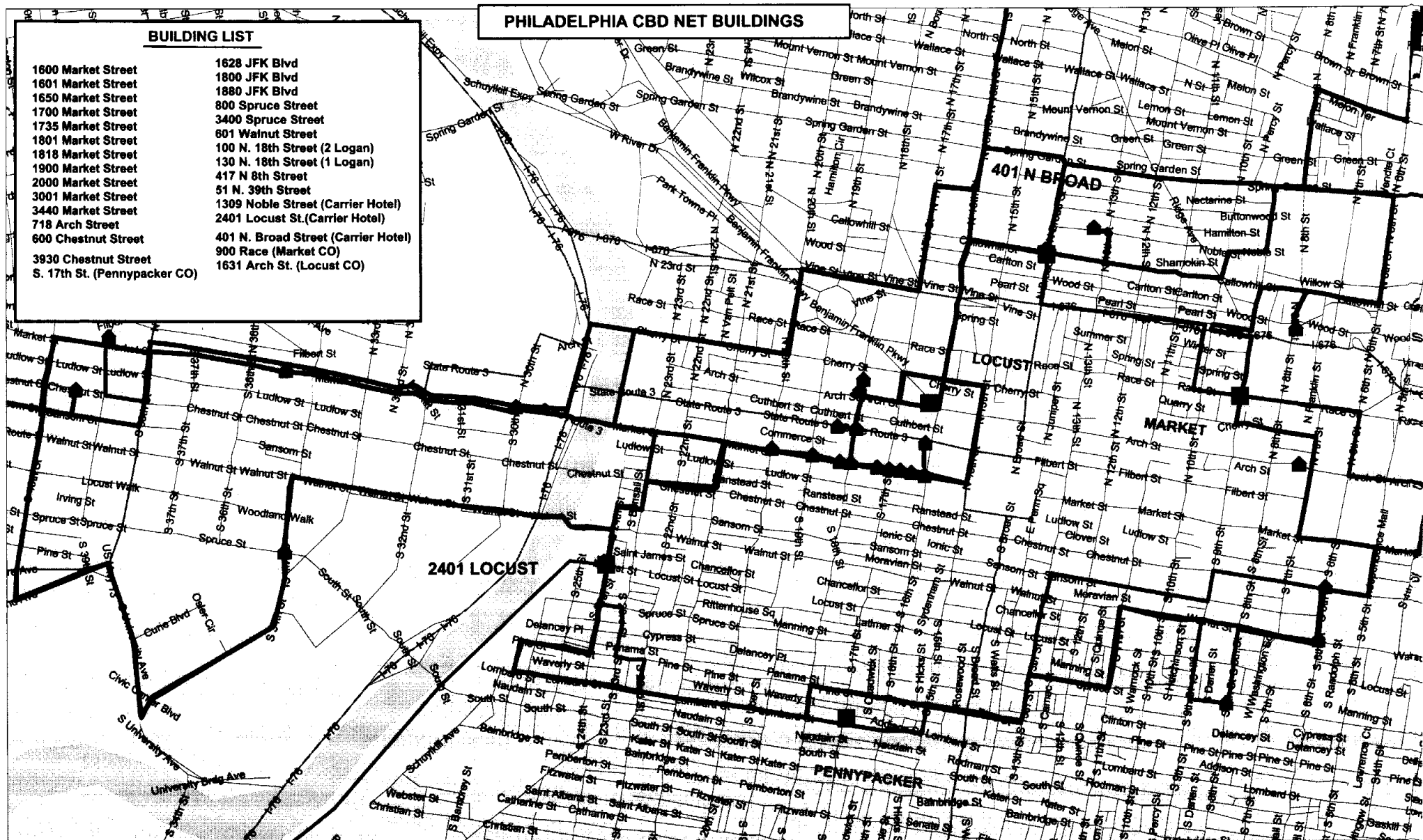
REV 02.11.03 N.T.S.



BUILDING LIST

1600 Market Street	1628 JFK Blvd
1601 Market Street	1800 JFK Blvd
1650 Market Street	1880 JFK Blvd
1700 Market Street	800 Spruce Street
1735 Market Street	3400 Spruce Street
1801 Market Street	601 Walnut Street
1818 Market Street	100 N. 18th Street (2 Logan)
1900 Market Street	130 N. 18th Street (1 Logan)
2000 Market Street	417 N 8th Street
3001 Market Street	51 N. 39th Street
3440 Market Street	1309 Noble Street (Carrier Hotel)
718 Arch Street	2401 Locust St.(Carrier Hotel)
600 Chestnut Street	401 N. Broad Street (Carrier Hotel)
3930 Chestnut Street	900 Race (Market CO)
S. 17th St. (Pennypacker CO)	1631 Arch St. (Locust CO)

PHILADELPHIA CBD NET BUILDINGS



Legend:

CSC Fiber
Central Office

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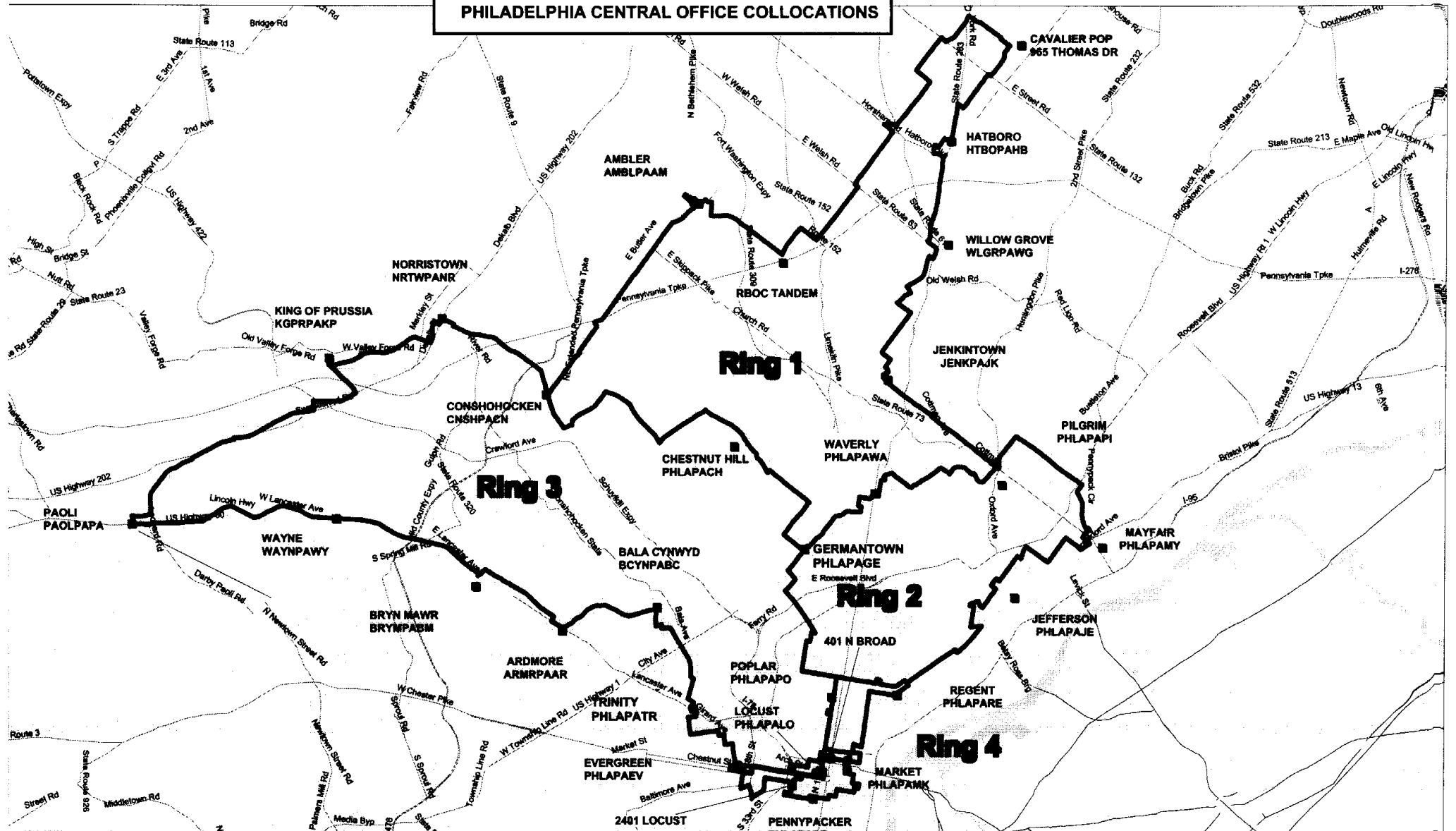
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PHILADELPHIA CENTRAL OFFICE COLLOCATIONS



Legend:

CSC Fiber
Central Offices

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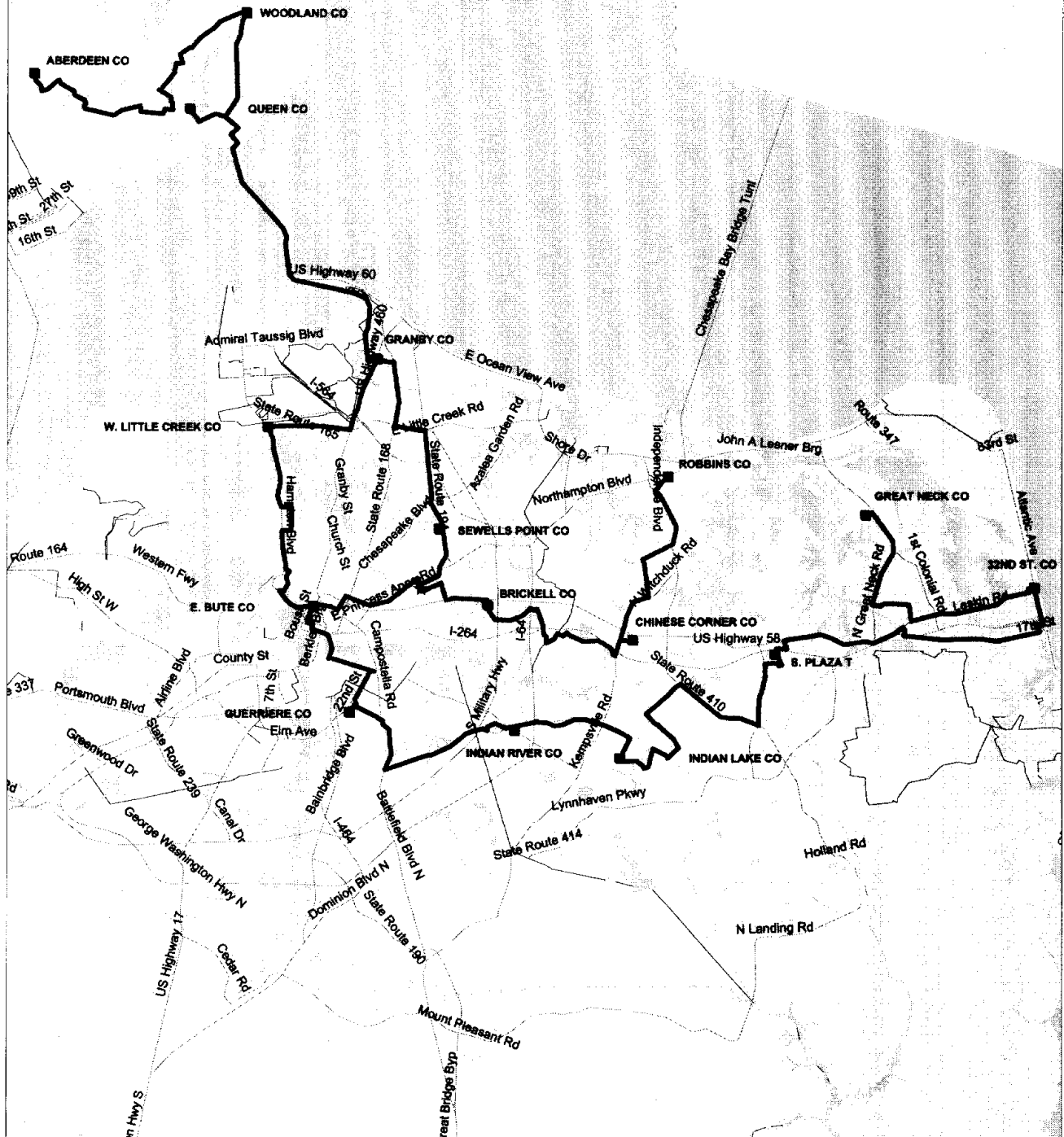
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REV 08.20.03 N.T.S.



NORFOLK NETWORK



Legend:

CSC Fiber
CENTRAL OFFICES ■

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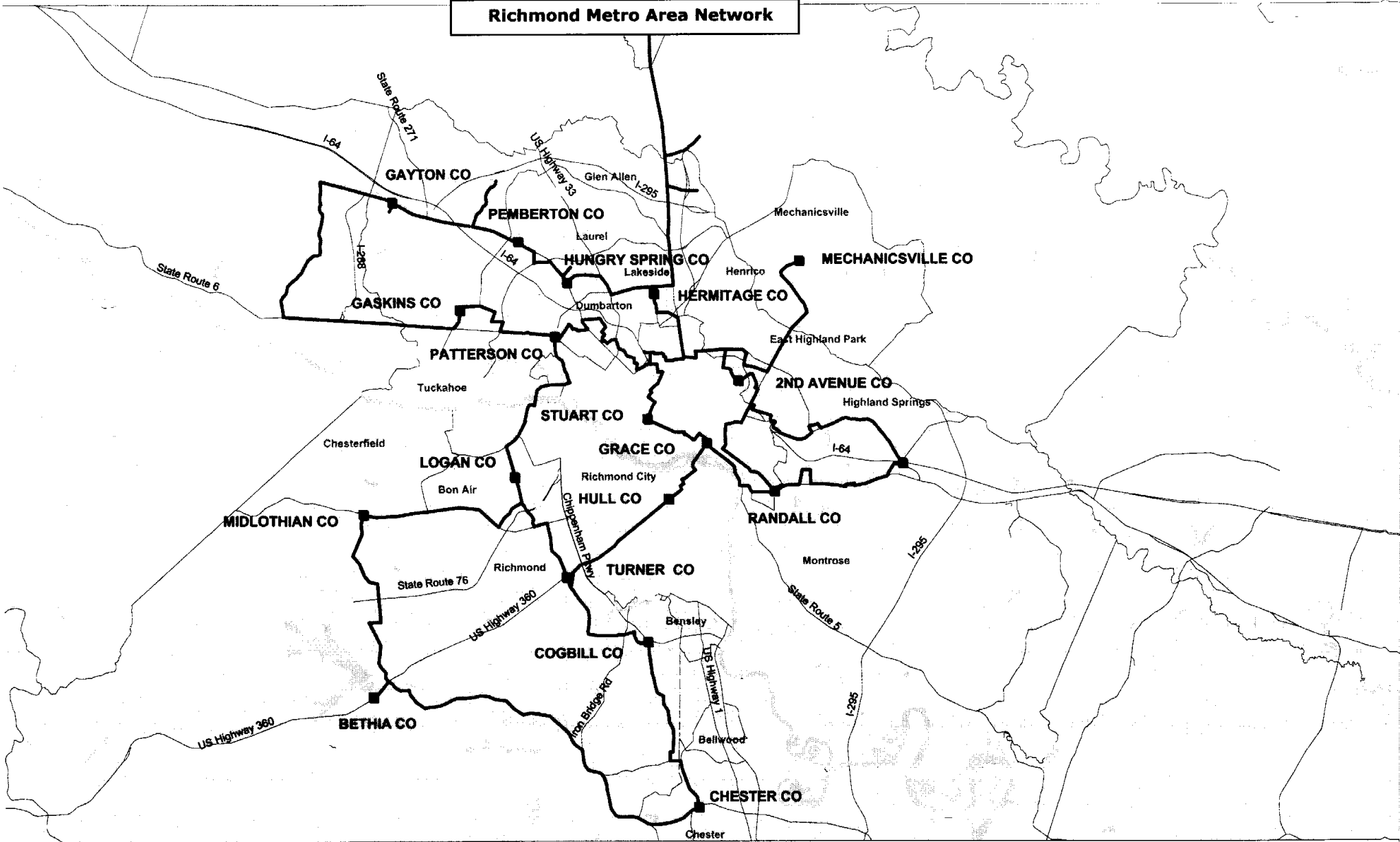
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Norfolk Virginia Network Design

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Richmond Metro Area Network



LEGEND

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REV. 10.30.03



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comcast

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- Comcast Workplace
- Comcast Teleworker
- Enterprise Internet Service
- Enterprise Network Service
- Comcast HospitalityONE

Resource Center

Username

Password

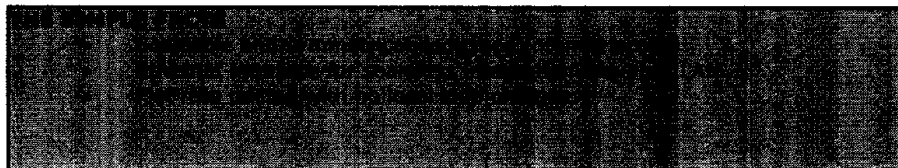
Remember me

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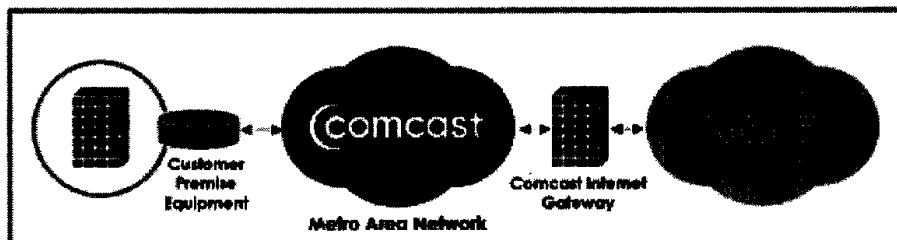
Enterprise Internet Service

Scalable high-speed dedicated Internet access



Cost-effective, symmetrical, dedicated Internet access that is easy and fast to upgrade. With Comcast, link your existing LAN infrastructure to the Internet and scale in 1Mbps increments with no traditional local loop charges.

Leverage our extensive fiber network for a reliable and scalable connection to the Tier 1 Internet backbone. With Comcast Commercial Services' Ethernet interface get true plug-and-play compatibility and turn the Internet into a responsive business machine.



Enterprise INTERNET Service can support large user populations and a wide range of applications. From e-mail and file sharing, to web hosting and streaming video, Comcast delivers the Internet directly to your door.

Service Features

- Tailored Bandwidth - Symmetrical dedicated Internet bandwidth configurable from 5Mbps to 1 Gbps in 1 Mbps increments.
- Multiple IP Addresses - Start with eight IP addresses and add addresses if needed.
- Domain Name System - Includes primary and secondary DNS service. Assistance provided to transfer existing domain names.
- BGP Routing Protocol (optional) - supports multi-homing with load balancing for faster, more efficient routing between networks.
- Web-based Reporting - Connectivity statistics with daily, 7-day and 30-day

Business Benefits

- Ease of Use - Connect your network directly to Comcast's and quickly and easily add additional bandwidth without the usual delays.
- High Availability - Minimize interruptions and keep your business running smoothly. We monitored your service 24X7 and have over 99.97% network availability.
- Optimized ROI - Reduce operating and maintenance costs with lower capital and operational requirements and provision only the capacity you need today.
- Minimized Risk - Deliver networking capabilities to your internal customers on-time and on-budget.

reports viewed through our secure web portal.

The advantages of high-speed dedicated Internet access are clear and with Comcast Commercial Services access is easy, cost-efficient, and tailored to meet your evolving needs.

For a more information, please [contact us](#) today or login to the [Resource Center](#) for application notes and other documents.

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comcast

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Resource Center

Username

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Telecommunications

Increasing Margins with Lower Transport Costs

Carriers are expanding their networks to complete coverage, increase QoS and grow market share. As a result they face rapidly increasing transport costs. Whether it is local loop charges or backhaul transport, carriers need to quickly address operational expenses to drive fiscal performance.

Carrier face other issues, like having limited configuration options and spotty coverage in residential and rural areas. While most networking companies can deliver in certain areas, very few have a wide footprint. Those that do have broader coverage, usually have rigid pricing structures and inflexible service configurations. Worst of all, you are often buying from a competitor or their parent company

Comcast's services can be deployed quickly and efficiently with minimal wait and bureaucracy than you are typically confronted with when purchasing services from traditional telephone carriers. Comcast We offers carriers a range of services that can support your voice and data transport needs with much lower costs. From traditional TDM, ATM and SONET, to Ethernet and managed wavelength configurations, Comcast has a solution to meet virtually any requirement.

Our pricing structures aren't impacted by LATA boundaries or local loop charges allowing us to offer more flexible terms. We can provision a tailored network that can rapidly scale so you don't need to over-engineer for future demand.

Comcast Commercial Services leverages the massive network of our parent company. This allows you to have managed access on a carrier class transport network designed for broadband applications. Our reach is broad and deep, with capacity in dense urban, sprawling suburban and even many rural areas others can't reach. More importantly, Comcast's Network is not part of the traditional telecommunications infrastructure, allowing Comcast to offer a physically diverse routing.

Comcast Advantage

Lower-cost data and voice transport on a single company's fiber network with broad reach and technical and economic flexibility.

Carrier Benefit

Cost-effective transport that can reach into new markets and scale at a moments notice. A stable and reliable service from a trusted network provider.

[Contact us](#) today to find out how your transport needs and our

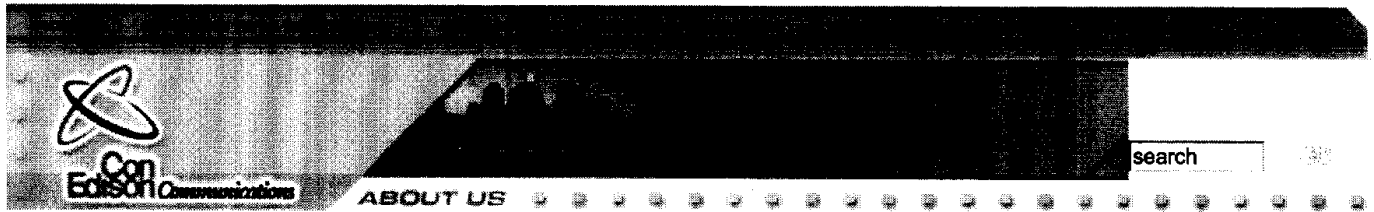
capabilities can be meshed for the technical and financial benefit of your organization.

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[Comcast Cable Channel Lineup](#)

Con Edison Communications



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Con Edison Communications (CEC), a subsidiary of Consolidated Edison, Inc., is the 'Smart Alternative' Competitive Local Exchange Carrier (CLEC). CEC offers a comprehensive range of data and voice transport products and services designed to enhance the performance of our customers' networks. CEC builds and operates its own fiber optic network providing managed data transport services, custom networks, local and long distance voice services and Internet services. CEC serves local and long-distance carriers, Fortune 1000 corporations, small and medium businesses, and Internet, cable, wireless and video companies. CEC's New York City metro area network continues to grow and currently interconnects over 100 commercial buildings, all major carrier Points-of-Presence (POPs) and many of the Verizon Central Offices in New York City.

CEC delivers the answers and supports your needs, wherever, whenever you need us, 24x7x365, with no compromise, period. When you sign on with CEC, you are supported by our:

- ADVANCED NETWORK OPERATIONS CENTER for total service coverage
- PROACTIVE MONITORING by a world-class team of network professionals
- SINGLE POINT OF CONTACT for all customer service
- GUARANTEED RESPONSE TIMES and RESOLUTION MEAN TIMES
- INTEGRATED BILLING for all CEC services
- SERVICE LEVEL AGREEMENTS designed around your specific requirements

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PowerWave Wavelength Service

PowerWave Wavelength Service is the alternative that network service providers seek for overcoming access and capacity constraints within the New York metropolitan area and beyond. It is the state-of-the-art fiber optic solution for addressing network logjams. CEC's PowerWave Wavelength Service provides a cost-effective, efficient way to increase network capacity.

PowerWave Wavelength Service Features

- 1.25 GB scalable to 10 GB Dedicated Protocol Transparent Capacity
- ITU standards-based DWDM equipment provides multi-vendor interoperability
- Restorable transport services for high reliability
- Protected - diverse, non-diverse
- Flexible configuration offering protected and unprotected transport
- 99.95% availability
- 24x7 monitoring and support
- Prime locations in the New York metropolitan area
- Supports Fibre Channel, EsCon, FiCon

Benefits

- Reduces time-to-market when expanding network capacity
- Provides a cost effective means for building diverse network protection
- Reduce costs by eliminating network management duplicity
- Predictable cost modeling for network build outs

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Cox Business Services



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Phoenix

Data Services
Private Line Services
Transparent LAN Services
Advanced Network Services



INTERNET/DATA SERVICE

Data Services


In today's increasingly complex world of computer networking, Cox Business Services offers an array of inter-networking solutions. Ranging from standard DS-1 and DS-3 private line services to advanced asynchronous transfer mode (ATM) switching systems, our data networking services fall into three primary categories:

- Private Line Services, such as DS-1, DS-3, OC-3
- Transparent LAN Services, including Ethernet and Token Ring
- Advanced Networking Services such as Fast Ethernet, FDDI, Frame Relay, ATM


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Phoenix

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Standard & Optional
Benefits
Specifications
Applications



INTERNET/DATA SERVICE

DS-1

A DS-1connection is a 1.544Mbps connection between a customer's PBX and the public switched telephone network (PSTN). This digital trunk interfaces directly with the PBX and can support up to 24 individual voice-grade trunks. DID, DOD and two-way trunks all can be delivered via a single interface. Delivered over Cox Business Services' fiber-optic-based network, the level of reliability and security once reserved only for the most sophisticated networking needs is now extended to local exchange service.

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RESIDENTIAL SERVICES



CARRIER SERVICE

Your Single Nationwide Source for Local Fiber Solutions When it comes to your ever-expanding network demands, it's all about access. And Cox Business Services helps you make the local connection with our state-of-the-art self-healing, redundant, ring-in-ring network. As an established leader in broadband communications, Cox offers the bandwidth and service you need to quickly, easily and reliably grow your existing networks or launch new ones.

Cox is a facilities-based provider, utilizing BGP routing over multiple connections to network access points (NAPs). We offer a pure point-to-point fiber optics connection from our network directly to your customers over a system architecture that ensures enhanced security, reliability and speed.

What's more, by owning and maintaining our network, we are wholly accountable, offering the simplicity and security of single-provider service.

Cox currently operates in over 20 major markets from coast to coast. More markets are being added throughout 2001 and 2002. [View our Cox Carrier Services markets.](#)

Products and Services:

Cox Carrier Services utilizes our local fiber backbone to deliver bandwidth speeds up to OC-48, giving you the speed and capacity you need to handle your customer's or network's bandwidth-heavy applications. We are also in the process of deploying Dense Wavelength Division Multiplexing (DWDM) technology in select markets for greater bandwidth capabilities. We offer several services for wholesale customers who need high-speed connectivity, including:

Cox Private Line Service: Provides point-to-point connections between points of presence (POPs). Connect your own points of presence or interconnect to another carrier, whether that carrier is an ISP, ILEC, IXC, CLEC, BLEC, or wireless provider. Cox offers you a choice of four high-volume, digital transmission bandwidths: DS-3, OC-3, OC-12 and OC-48. [A network diagram can be viewed here.](#)

Cox Carrier Access Service: Provides you with dedicated local loop access to your customers through hubbed, point-to-point private line connections. Cox Carrier Access consists of two components, a Carrier Interconnection Circuit and a Customer End Loop. Choose from two bandwidth levels on the Carrier Interconnection Circuit and four bandwidth levels on the Customer End Loop. [A network diagram can be viewed here.](#)

Carrier Interconnection Circuits connect the Cox POP to your POP and are available in OC-12 and OC-48 bandwidths. Customer End Loops connect your network to your customer's office or facility and are available in DS-1, DS-3, OC-3 and OC-12 bandwidths.

Both our Private Line and Carrier Access services are deployed over our SONET transmission equipment with electronic redundancy. Cox's self-healing network with path and electronic protection switching utilize fiber-optic rings with path diversity.

A Single Team Dedicated to Carrier Sales

Local access is important to you-important enough that Cox has formed a national team of experts that support you in every Cox market and who are solely dedicated to handling all aspects of your fiber solution. Cox's national account team typically consists of an Account Executive, Sales Order Administrator, Sales Customer Care Representative, Sales Billing Analyst and Sales Engineer. So, whether you are buying for one or multiple markets, the process is always simple and streamlined.

The national structure of Cox Carrier Services also affords flexible pricing options. By viewing your account on a national perspective, we often are able to provide significant volume discounts, making the most of your national buying power.

Should you ever need assistance, we're just a phone call away. Just call 1.877.669.3038 or contact us at cbs.carriersales@cox.com.

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Edison Carrier Solutions

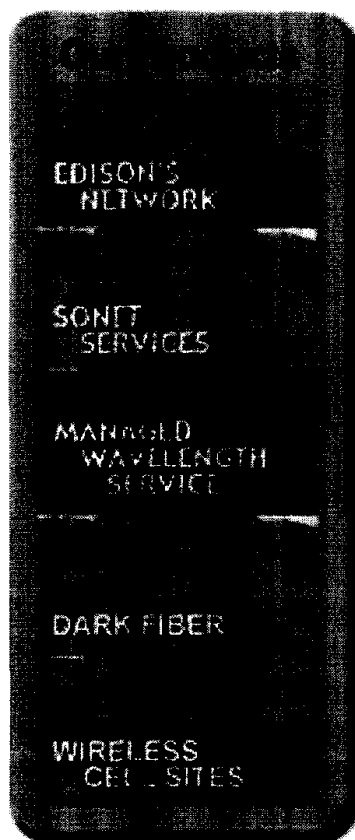


EDISON

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Dark Fiber

Edison Dark Fiber is available as one or more optical fiber strands that can be licensed or leased to carriers who prefer the option of operating their own equipment and managing the service to their customers. Dark fiber is available in a multitude of routes in metropolitan area for use as a backbone network as well as in local loops that serve carrier hotels, carrier points of presence, and central offices. In addition to a variety of locations, routes are also available in several unique architectures that include collapsed ring, self-healing ring and star configurations to better serve your specific applications.

With Edison dark fiber, carriers will receive the benefits of an experienced ECS construction and maintenance work force as well as the peace of mind in knowing that they are available to be dispatched 24 hours a day, 7 days a week.

Fiber Attributes

Fiber optic cable capable of supporting:

- SONET/SDH
- DWDM
- ATM/IP
- Video applications and data center connectivity
- Standard Singlemode Fiber
- Attenuation of:
 - .4 dB/km @ 1310 nm and
 - .3 dB/km @ 1550 nm
- Arc fusion splicing

Value to your Business

- Control your network
- Establish your own protection schemes
- Manage your network scalability requirements

- Manage your network with your NOC

[back to top](#)

[Edison's Network](#) | [SONET Services](#) | [Managed Wavelength Services](#) | [Dark Fiber](#) | [Wireless Cell Sites](#)
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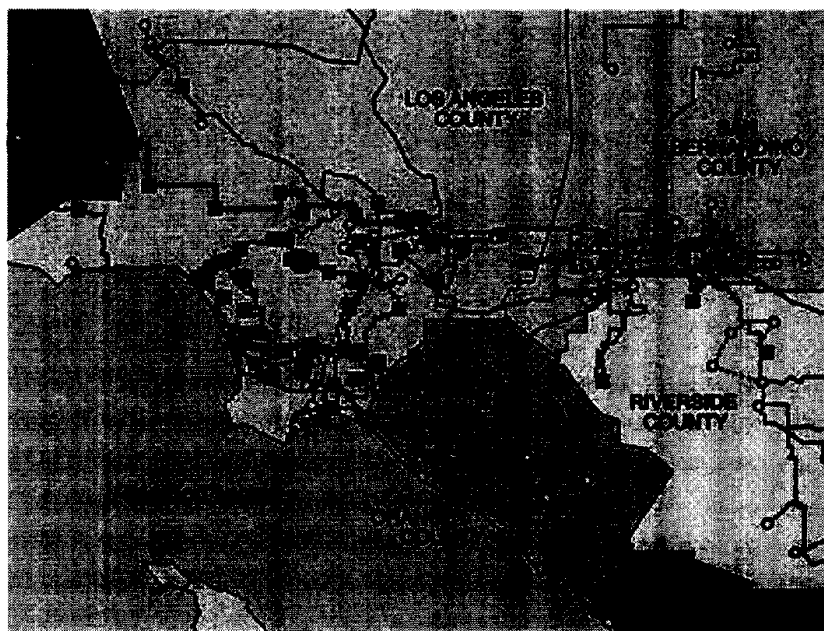
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NETWORKSONET
SERVICESMANAGED
WAVELENGTH
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DARK FIBER

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EDISON'S NETWORK

We are committed to creating an environment that allows you to grow your business in metro markets.



Our goal is to provide connections to our network at accelerated provisioning intervals that we deliver as a result of our strong planning practices, and construction expertise.

Network Attributes

- 2,500 route-mile fiber-optic network, the largest competitive carrier network in Southern California.
- Connectivity to carrier points-of-presence, carrier

hotels, data centers, tandems and end-offices spanning both Pacific Bell and Verizon service areas.

- True route diversity and diverse building entrances in the overwhelming majority of our cable routes.
- A network architecture optimized for the broadband transport of your traffic, whether it's traditional SONET-based or leading-edge IP.
- Network monitoring on a 24-hour, 7-day-per-week basis from our Telecommunications Control Center, housed in a seismically-reinforced facility, located in the heart of Irvine Technology Park.
- Experienced crews available for dispatch around-the-clock to ensure service availability.

Value to Your Business

Our extensive network in Southern California allows you to meet growing bandwidth needs quickly, open and expand into new markets, and provides the network reliability you need to provision efficient revenue-generating services.



[back to top](#)

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El Paso Global Networks

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EP Metro

EP Metro Solutions offers the quickest way through crosstown traffic.

El Paso Global Networks offers EP Metro Solutions, a wholesale high-speed private line transport service that delivers dedicated connectivity between two or more locations within the same city. EP Metro Solutions provides a flexible, managed solution for point-to-point or point-to-multipoint connections in all of the El Paso Global Networks gateway cities in Texas.



EP Metro Solutions Advantage

EP Metro Solutions offers an extremely effective way for your network to overcome its metro last-mile challenges. With unique flat-rate pricing plans and exceptional market coverage, EP Metro Solutions provides a cost-effective, reliable, and secure solution for all metro transport needs. Once a connection to our hub is established, your network will have access to the entire El Paso Global Networks' metro market, helping you avoid costly capital outlays.

Services

El Paso Global Networks offers bandwidth transmission rates ranging from DS-1 through OC-192 to fit your growing metro bandwidth needs. El Paso Global Networks offers connectivity to other carriers as well as 24/7 network monitoring and an account management team dedicated to providing superior customer service.

To request a service quote or learn more about how EP Metro Solutions can fulfill your bandwidth needs, call us at 1-866-463-5727.

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EPIK Communications

Additional Services



Collocation

EPIK's Collocation Services offer a quick, cost effective solution to housing your equipment. You'll have the security of knowing that that your network is safe, reliable and runs nonstop.

Our commitment to your success includes:

- Rack and cage space.
- Carrier classification.
- AC and DC power. Take advantage of versatile power options tailored to your specific equipment needs.
- Standby generator and battery back-up. Avoid disruptions in service caused by power outages and other emergencies with four and eight hour back-up equipment with an automatic-start emergency generator.
- Environmental controls and alarms. Count on our Network Control Center (NCC) to monitor facilities for fire, heating and cooling as well as supervised entrance activity 24 hours a day, 7 days a week.
- Physical security. Our secure facilities ensure your equipment is fully protected from intrusions.

Dark Fiber

EPIK's range of reliable service delivery also includes dark fiber on our Southeast network which includes:

- Splicing and pre-sale testing on fiber.
- Fiber maintenance.
- As-built drawings.

To learn more about EPIK and our family of services, call us at 407.482.8400 or visit us on the web at www.epik.net